

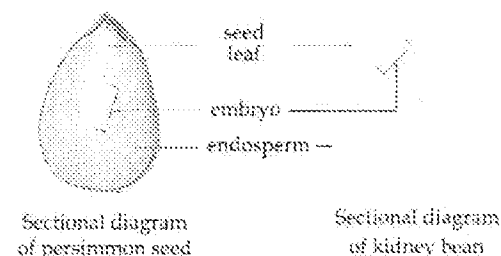
# Technical Comparison Table

2007.05.10.

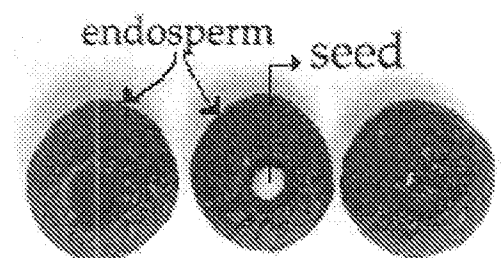
		Present invention	Reference (Malvold)
Object		Providing cultivation method of plant	Providing production method of compressed, expandable shape-retaining peat moss briquettes suitable for growing plants
Con- sti- tu- tion	subject	cultivation method of plant	production method of peat moss briquettes
	process	<p>a) <u>mixing</u> fertilizer consisting of nitrogen (N), phosphorus (P) and potassium (K) with peatmoss <u>using water-soluble glue</u>;</p> <p>b) <u>forming</u> a mixture of a) step to insert a plant seed in that;</p> <p>c) <u>drying</u> the mixture formed from b) step to a <u>water content of 15-25% by weight</u>;</p> <p>d) <u>making a hole</u> to said dried mixture, <u>inserting the plant seed</u> selected from <u><i>Calendula officinalis</i> cv. Gold star or <i>Salvia splendens</i> cv. Hot jazz</u> into it, pressing and sealing them with the <u>mixture prepared in the step a)</u> and obtaining the resulted pellet with plant seed inserted; and</p> <p>e) <u>sowing</u> the pellet with plant seed inserted <u>in the soil surface without covering earth after sowing</u></p> <p># Amended based on examples of the original specification</p>	<p>a. <u>applying an aqueous bituminous emulsion</u> to finely-divided moisture-containing peat moss particles while intermixing said peat moss particles to distribute said emulsion therethrough, said peat moss containing from 25 to 50 percent water by weight, said emulsion having a continuous aqueous phase and a dispersed bituminous phase, said emulsion breaking upon said intermixing to deposit dispersed particles of bitumen, the resulting admixture containing from 15 to 40 percent by weight of bitumen based upon the dry weight of said peat moss;</p> <p>b. <u>drying said peat moss-bitumen mix</u> to a water content of below 25 percent by weight at which said mix is compressible without squeezing out water, the temperature of said mix during drying being controlled to prevent damage to the horticultural properties of the peat moss; and</p> <p>c. <u>compressing</u> individual portions of said dried mix in one direction, said compressing integrating said mix portions by reducing their thickness to less than one-half their uncompressed thickness in the direction of said compression and being sufficient to form said portions into rigid bodies;</p> <p>d. whereby said rigid bodies are expandable on contact with water, said expansion being in the direction of said compression to a thickness intermediate their compressed and uncompressed thickness to form soft, moist, shape-retaining cakes</p>
Effect		<p>1. Providing peatmoss pellet unit Inserting plant seed unit --&gt; Possibility of flight sowing --&gt; Possibility of sowing on the soil surface without covering earth  --&gt; <u>Simplicity</u> of cultivation  --&gt; Conversion into enlarged plant seed by covering with peatmoss comprising fertilizer and plant growth regulator as</p>	<p>1. Providing peat moss briquettes <u>NOT</u> inserting plant seed --&gt; No possible to sow by flight --&gt; Plant seed should be sowed in the upper hole of briquettes after expanding by water --&gt; <u>Uncomfortable</u> to cultivate plant by using the briquettes</p>

Difference

### 1. Seed construction



### 2. Enlargement of endosperm



### Enlargement of endosperm

Endosperm is the albumen tissue produced in the seeds of most flowering plants around the time of fertilization. It surrounds the embryo and provides nutrition in the form of starch, though it can also contain oils and protein during germination of seed. Germination and growth of plant seed occurs easily as big as endosperm's size is.

Pellet of the present invention has peatmoss composition with fertilizer and GA as a plant growth hormone.

The peatmoss composition perform a role of endosperm in the pellet of the present invention.

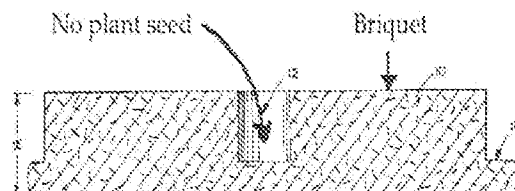
Therefore, plant seed inserted in the pellet of the present invention is germinated and grown more and more easily.

### 3. Remarkable effects

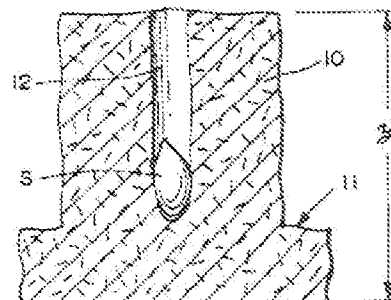
According to ①the plant seed selected from *Calendula officinalis* cv. Gold star or *Salvia splendens* cv. Hot jazz, ② sowing in the soil surface and ③ adding GA (no NAA) as a plant growth hormone

Refer to FIG. 12a, 12b, 13a, 13b and 14 of the enclosed sheet.

### 1. Briquet construction



### 2. No enlargement of endosperm



"After expansion, a seed such as the seed S shown in FIG. 3, can be inserted in the planting holes 12..." (column 5, line 20-21)

No enlargement of endosperm.

Therefore, there is no improvement in germination and growth of plant seed.